WHAT IS CLAIMED IS:

1. A method of performing transluminal mitral annuloplasty, comprising the steps of: providing a catheter, having a prosthesis thereon; inserting the catheter into the venous system; transluminally advancing the prosthesis into the coronary sinus; advancing at least one tissue anchor from a retracted position to an extended position; and manipulating a component of the prosthesis to cause the prosthesis to exert force on the mitral valve annulus.

2. A method as in Claim 1, further comprising the step of percutaneously accessing the venous system prior to the transluminally advancing step.

3. A method as in Claim 2, wherein the accessing step is accomplished by accessing one of the internal jugular, subclavian and femoral veins.

4. A method as in Claim 1, further comprising the steps of first measuring the coronary sinus and then selecting an appropriately sized prosthesis prior to the inserting step.

5. A method as in Claim 1, further comprising the step of measuring hemodynamic function following the manipulating a component of the prosthesis step.

6. A method as in Claim 5, further comprising the step of determining an ongoing drug therapy taking into account the post implantation hemodynamic function.

7. A method as in Claim 1, wherein the advancing at least one tissue anchor step comprises advancing the anchor from an axial orientation to an inclined orientation.

8. A method as in Claim 7, wherein the tissue anchor has a proximal end for piercing tissue and a distal point of attachment to the prosthesis, and the advancing at least one tissue anchor step comprises rotating the anchor about the point of attachment.

9. A method as in Claim 1, comprising advancing at least two tissue anchors to an extended position.

10. A method as in Claim 8, comprising advancing at least two tissue anchors to an extended position.

11. A method as in Claim 1, wherein the manipulating a component of the prosthesis step causes the prosthesis to transform into a curved configuration having a first side facing towards the mitral valve annulus and a second side facing away from the mitral valve annulus.

12. A method as in Claim 11, additionally comprising the step of advancing at least two tissue anchors in the direction of the mitral valve annulus.

13. A method as in Claim 12, wherein a first tissue anchor inclines outwardly from the prosthesis in a distal direction and a second tissue anchor inclines outwardly from the prosthesis in a proximal direction.

14. A method as in Claim 1, wherein the manipulating step comprises axially moving a forming element with respect to the prosthesis, to bend the prosthesis.

15. A method as in Claim 1, further comprising the step of locking the prosthesis to retain a force on the annulus following the manipulating step.

16. A method as in Claim 15, wherein the locking step comprises moving an engagement surface from a disengaged configuration to an engaged configuration.

17. A method as in Claim 15, wherein the locking step comprises providing an interference fit.

18. A method as in Claim 15, wherein the locking step is accomplished with a threaded engagement.

19. A method as in Claim 5, wherein the step of monitoring hemodynamic function is accomplished using transesophageal echo cardiography.

20. A method as in Claim 5, wherein the step of monitoring hemodynamic function is accomplished using surface echo cardiographic imaging.

21. A method as in Claim 5, wherein the step of monitoring hemodynamic function is accomplished using intracardiac echo cardiographic imaging.

22. A method as in Claim 5, wherein the step of monitoring hemodynamic function is accomplished using fluoroscopy with radiocontrast media.

23. A method as in Claim 5, wherein the step of monitoring hemodynamic function is accomplished using left atrial or pulmonary capillary wedge pressure measurements.

24. A method of providing a therapeutic compressive force against a tissue structure which is adjacent to a vessel wall, the vessel wall having a first side and a second side, comprising the steps of positioning a device in the vessel; advancing a proximal tissue anchor from the device into the first side; advancing a distal tissue anchor from the device

into the first side; and manipulating a forming element within the device to cause the device to exert a force against the first side of the wall of the vessel in between the proximal anchor and the distal anchor.

25. A method as in Claim 24, wherein the positioning step is accomplished percutaneously.

26. A method as in Claim 24, wherein the tissue structure comprises the mitral valve annulus.

27. A method as in Claim 24, wherein the tissue structure comprises the left ventricle.

28. A method as in Claim 24, wherein the vessel comprises a vein.

29. A method of performing annuloplasty of the mitral valve comprising positioning a prosthesis in the coronary sinus; rotating a first portion of the device with respect to a second portion of the device to cause the device to bend into an arcuate configuration having a proximal concavity and a distal concavity both concave toward the mitral valve and a central concavity concave away from the mitral valve, to provide a compressive force on the mitral valve annulus; and securing the device in the arcuate configuration within the coronary sinus.

30. A method as in Claim 29, further comprising the step of percutaneously accessing the venous system prior to the positioning step.

31. A method as in Claim 30, wherein the accessing step is accomplished by accessing one of the internal jugular, subclavian and femoral veins.

32. A method as in Claim 29, wherein the securing step comprises engaging a first threaded surface with a second threaded surface.

33. A method as in Claim 29, further comprising the step of measuring hemodynamic function following the rotating step.

34. A method as in Claim 33, further comprising the step of determining an ongoing drug therapy taking into account the post implantation hemodynamic function.

35. A medical apparatus for remodeling a mitral valve annulus adjacent to the coronary sinus, comprising: an elongate body, having a proximal end region and a distal end region, each of the proximal and distal end regions configured to move between a first,

flexible configuration for transluminal delivery to at least a portion of the coronary sinus and a second remodeling configuration in which each of the proximal and distal end regions forms a curve which is open in the direction of the mitral valve; and a forming element for manipulating the elongate body between the first transluminal configuration and the second remodeling configuration.

36. A medical apparatus as in Claim 35, wherein the elongate body comprises a tube having a plurality of transverse slots therein.

37. A medical apparatus as in Claim 36, wherein the elongate body transforms into the remodeling configuration by changing the width of the slots.

38. A medical apparatus as in Claim 35, further comprising a coating on the body.

39. A medical apparatus as in Claim 35, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to proximal retraction of the forming element.

40. A medical apparatus as in Claim 35, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to distal advancement of the forming element.

41. A medical apparatus as in Claim 35, wherein the apparatus is movable from the implantation configuration to the remodeling configuration in response to rotation of a threaded shaft.

42. A medical apparatus as in Claim 35, further comprising an anchor for retaining the apparatus at a deployment site within a vessel.

43. A medical apparatus as in Claim 42, wherein the anchor comprises a distal extension of the apparatus.

44. A medical apparatus as in Claim 42, wherein the anchor comprises a surface structure for engaging the wall of the vessel.

45. A medical apparatus as in Claim 35, wherein the anchor comprises at least one barb for piercing the wall of the vessel.

46. A medical apparatus as in Claim 45, comprising a first barb on the proximal end region and a second barb on the distal end region.

47. An implant for positioning within a patient, comprising: an elongate flexible body having a proximal end and a distal end, and a longitudinal axis extending therebetween, and first and second opposing sides extending along the implant body; the first side having at least one fixed axial length section, and the second side having at least one fixed axial length section, axially offset from the fixed axial length section on the first side; at least a first forming element extending through the body to a distal point of attachment to the body; and a detachable coupling on a proximal portion of the body, for removably attaching the body to a deployment catheter; wherein manipulation of the first forming element deflects at least a first portion of the body away from the longitudinal axis.

48. An implant as in Claim 47, wherein the body comprises a tubular wall.

49. An implant as in Claim 47, comprising a plurality of voids in the wall along the second side, opposing the fixed axial length section on the first side, thereby permitting adjustment of the axial length of the second side.

50. An implant as in Claim 49 wherein at least some of the voids comprise slots through the wall, extending generally transverse to the longitudinal axis.

51. An implant as in Claim 50 comprising at least 10 transverse slots in the wall of the second side.

52. An implant as in Claim 51 comprising at least 20 transverse slots in the wall of the second side.

53. An implant as in Claim 50, wherein the first forming element comprises an axially movable element.

54. An implant as in Claim 53, wherein the first forming element comprises a pull wire.